## THE RADULA IN SOME NITRIDE.

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The radula of the Mitridæ formed the subject of a paper by the Rev. Dr. A. H. Cooke in Proc. Zool. Soc., 1919, pp. 405 to 422. The object of the present note is principally to put on record the form of the radula in a few additional species. I have to thank the officials of the British Museum (Natural History) for permission to study the collections in their charge and refer to the same in this paper.

## 1. Mitra.

M. solidi, Reeve. Two specimens from Twofold Bay, New South Wales, kindly provided by Mr. T. Iredale from his Roy Bell Collecton, furnished radulæ having 64 and 61 rows respectively. Number of cusps on rhachidian 9. Number of cusps on laterals: 13 and 14 in one specimen, 15 and 16 in the other. (Fig. 1.)
M. fusca, Swainson. Madeira. A specimen in the British Museum Collection agrees fairly well with the figure in Troschel.

2. Vexillum.
V. costellaris, Lamarck. A specimen from Singapore, in the Gwatkin Collection (not recorded by Cooke), has 47 rows plus nascent. Rhachidian is bow-shaped with 15 cusps and is peculiar in that the centre cusp is smaller than the rest, which diminish slightly outwards. Lateral rather blunt. (Fig. 2.)

A Twofold Bay specimen furnished a radula similar to that of its ally tasmanica, T. Woods, but base of rhachidian is less arched. Number of rows 57. Number of cusps on rhachidian 9. ${ }^{1}$ Laterals stouter than those of tasmanica except at the distal end. (Fig. 3.)

## 3. Pusia.

$P$. merula, Sowerby. An immature specimen from Durban, kindly provided by Mr. J. R. Le B. Tomlin. Somewhat resembles that of hizenense, Pilsbry, from Japan. Number of rows 64 plus nascent. (Fig. 4.)
P. tricolor Gmelin. A specimen from Malta, in the Gwatkin Collection (not recorded by Cooke), has about 55 rows. It is very like the radula of ebenus, Lamarck, but laterals are rather broader. (Fig. 5.)

The species with radulæ of this type are placed by Cooke in a "Group 2 " under Vexillum. One of these species is porphyreticum, Reeve, which has a squat costulate shell having all the characters of that of microzonias, Lamarck, the type species of Pusia, but of which the radula is not known. Of the remainder, though ebenus and tricolor have longer, smooth shells, their varieties, defrancii, Payr., and savignyi, Payr., respectively, are costulate. Hizenense and merula form another group with shells slightly costulate, but it is significant that Sowerby in his description of merula (Journal of Conchology, vi, p. 8) draws attention to the resemblance of the shell to that of ebenus. Australis differs somewhat from the others, having a smooth shell with much higher spire.

On the evidence of the radula it seems desirable that Pusia be given generic rank and the above-mentioned species be included therein.

## 4. Cylindra.

The radula of C. nucea, Meuschen, is figured in Troschel among those of the Marginellidæ, no doubt because of the absence of laterals. The rhachidian, however, is very like that of Vexillum, with 9 cusps, but these are smaller and further apart than is usual in that genus. The British Museum Collection contains a specimen of the radula of $C$. dactylus, L. It is in bad condition, but evidently lacks laterals. The rhachidian appears to be almost rectangular. with slightly incurved base reminiscent of Mitra and Marginella. The number and form of the cusps cannot be determined.

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[^0]:    ${ }^{1}$ The rhachidians of three other specimens have 8, 9, and 11 cusps respectively.

